



CR-AX101W

YU(VT)



SERVICE MANUAL

STEREO RADIO RECEIVER

This Service Manual is the "Revision Publishing" and replaces "Simple Manual" (S/M Code No.09-003-339-6T1).

aiwa
S/M Code No. 09-003-339-6R1

REVISION
DATA

SPECIFICATIONS

Frequency range	FM: 87.5 - 108 MHz AM: 530 - 1,710 kHz
Maximum output	6 mW + 6 mW (EIAJ 32 ohms)
Power source	DC 1.5 V using a size AA (R6) battery
Output	Headphones jack (Stereo mini jack)
Maximum dimensions	74.5 (W) x 82 (H) x 29 (D) mm (3 x 3 1/4 x 1 3/16 in.)
Weight	Approx. 74 g (2.6 oz) (excluding battery)

- Design and specifications are subject to change without notice.

ACCESSORIES LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8A-RCL-901-010	IB,WYU(3L)	
2	87-B30-319-010	HEADPHONE,HP-M046(S)	NECK-BAND
3	8A-RCL-006-010	CLIP,BELT	YU

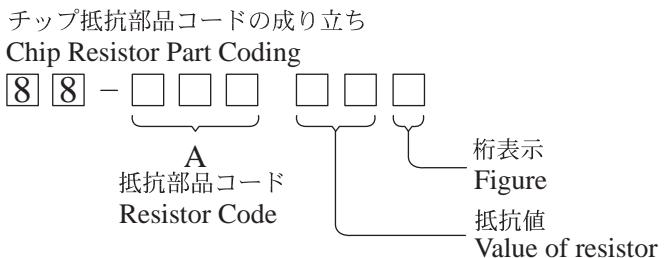
BLOCK DIAGRAM

ELECTRICAL MAIN PARTS LIST

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REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
IC							
87-A21-098-040	C-IC,NJM2096M	C129	87-010-192-080	C-CAP,S 0.022-50 F			
87-017-789-080	IC,TA2022FN	C130	87-010-031-010	CAP,E 3.3-25 M BK			
87-A20-745-040	C-IC,TA2030FN	C131	87-010-807-010	CAP,E 330-6.3MCA			
		C132	87-010-194-080	CAP, CHIP 0.047			
		C134	87-012-191-080	CHIP CAP 68 PF			
TRANSISTOR							
87-A30-486-040	C-TR,BC857B	C135	87-A10-047-080	CAP, U 1-10			
89-508-824-080	CHIP FET,2SK882YTY	C136	87-010-148-080	CAP, CHIP S 4P-50 NPO			
89-327-144-080	TR,2SC2714Y	C137	87-012-159-080	C-CAP,S 24P-50 SL			
		C138	87-012-167-080	C-CAP,U 5P-50 CH			
		C139	87-A10-827-080	C-CAP,U 0.47-6.3 K B			
DIODE							
8Z-CA3-615-010	DIODE,1S2638	C140	87-012-281-080	C-CAP,U 3900P-50 B			
		C141	87-012-281-080	C-CAP,U 3900P-50 B			
		C142	87-012-275-080	C-CAP,U 1200P-50 SL			
		C145	87-012-286-080	CAP, U 0.01-25			
		C146	87-A10-047-080	CAP, U 1-10			
MAIN C.B							
BF101	87-A91-701-010	FLTR,GFW B4	C147	87-012-193-080	C-CAP,82P-50 NPO		
C101	87-012-274-080	C-CAP,U 1000P-50 B	C148	87-012-188-080	C-CAP,47P-50		
C102	87-012-274-080	C-CAP,U 1000P-50 B	C149	87-012-286-080	CAP, U 0.01-25		
C103	87-A11-729-080	CHIP CAPACITOR,0.47-25	C150	87-012-286-080	CAP, 0.01-16		
C104	87-A11-729-080	CHIP CAPACITOR,0.47-25	C151	87-012-274-080	C-CAP,U 1000P-50 B		
C105	87-A11-729-080	CHIP CAPACITOR,0.47-25	C152	87-012-274-080	C-CAP,U 1000P-50 B		
C106	87-A11-729-080	CHIP CAPACITOR,0.47-25	C153	87-012-274-080	C-CAP,U 1000P-50 B		
C109	87-010-807-010	CAP,E 330-6.3MCA	CF101	87-008-570-010	FLTR,SFT10.7MS23H-AE		
C110	87-A10-827-080	C-CAP,U 0.47-6.3 K B	CF102	86-HC5-628-010	FLTR,CDA10.7 MG16		
C111	87-A10-827-080	C-CAP,U 0.47-6.3 K B	CF103	87-A91-702-010	FLTR,CFM2 450BL		
C112	87-010-079-010	100UF,6.3V ELECTROLYTIC	J101	8A-RCL-608-010	JACK,TC38 ST W/O SW		
C113	87-010-079-010	100UF,6.3V ELECTROLYTIC	L1	8A-RCL-606-010	COIL,BAR-ANT		
C116	87-012-286-080	CAP, U 0.01-25	L101	87-003-097-080	COIL,1UH		
C117	87-012-159-080	C-CAP,S 24P-50 SL	L102	87-003-097-080	COIL,1UH		
C118	87-010-184-080	C-CAP,S 3300P-50 B	L103	87-003-050-010	COIL,47UH		
C119	87-010-831-080	C-CAP,U,0.1-16F	L104	8A-RCL-601-010	COIL,FM RF		
C120	87-010-831-080	C-CAP,U,0.1-16F	L106	8A-RCL-602-010	COIL,FM OSC		
C121	87-A10-827-080	C-CAP,U 0.47-6.3 K B	L107	87-003-098-010	COIL,2.2UH		
C122	87-012-268-080	C-CAP,U 330P-50 B	L115	87-003-105-080	INDUCTOR,0.22UH		
C123	87-A10-504-080	C-CAP,U 0.047-16 K B	PVC101	87-A90-181-010	TUN-CAP,20-80-160 16X16		
C124	87-010-831-080	C-CAP,U,0.1-16F	SFR101	8A-RCL-610-010	SFR,10K		
C125	87-A10-827-080	C-CAP,U 0.47-6.3 K B	SW101	87-036-322-010	SW,SL 2-2-3		
C126	87-010-192-080	C-CAP,S 0.022-50 F	SW102	87-A91-152-010	SW,SL 1-1-2 SSSS212-11-A		
C127	87-012-273-080	C-CAP,U 820P-50 B	T101	8A-RCL-603-010	COIL,FM IFT		
C128	87-012-268-080	C-CAP,U 330P-50 B	T102	8A-RCL-604-010	COIL,AM IFT		
			T103	8A-RCL-605-010	COIL,AM OSC		
			TC101	S1-000-200-010	TRIMMER CAP,20P		
			VR101	8A-RCL-609-010	VR,RTRY 50KAX2		

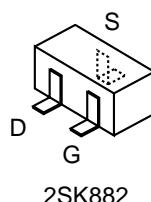
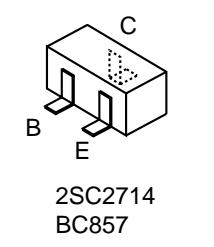
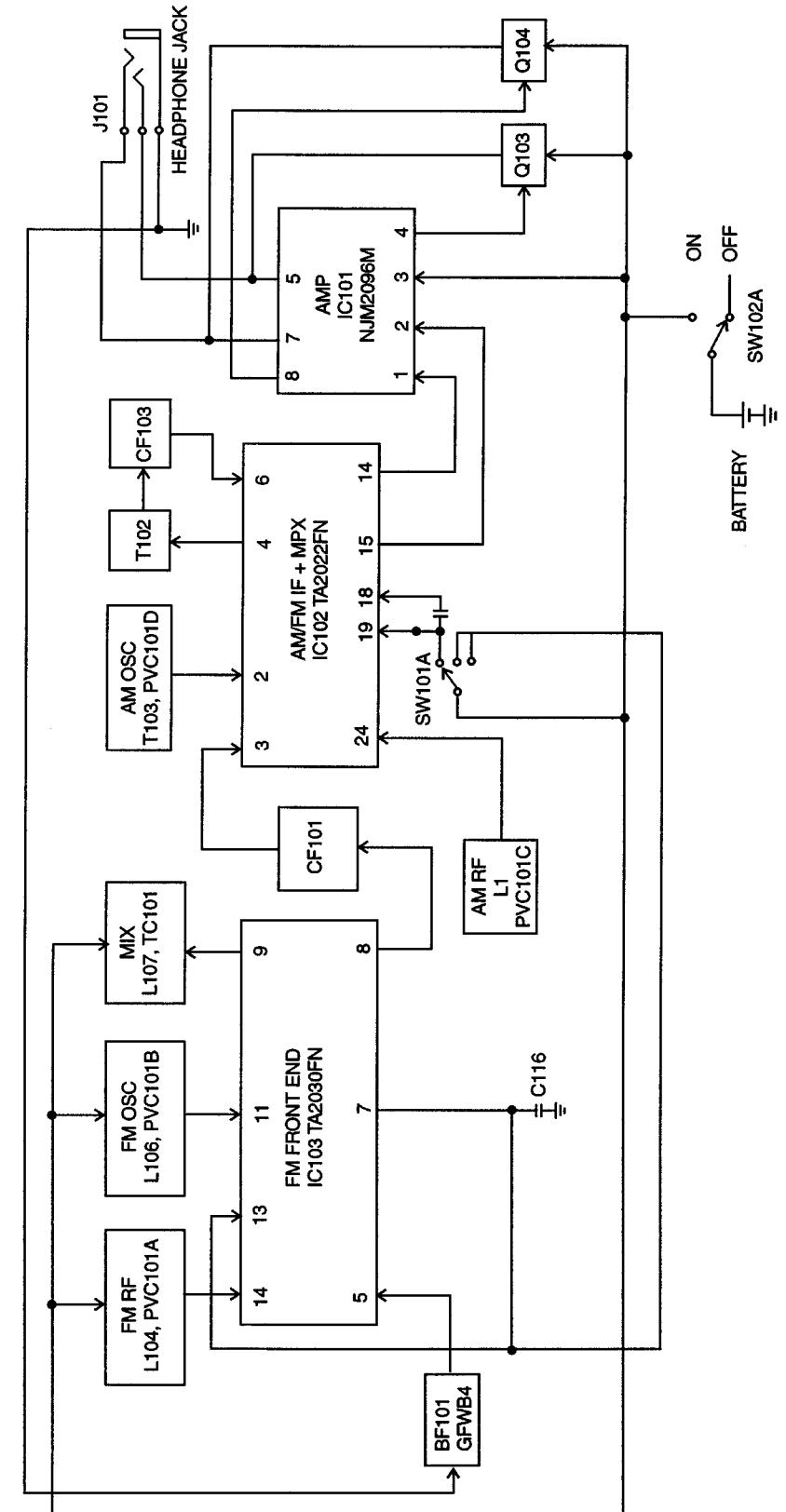
○チップ抵抗部品コード／CHIP RESISTOR PART CODE



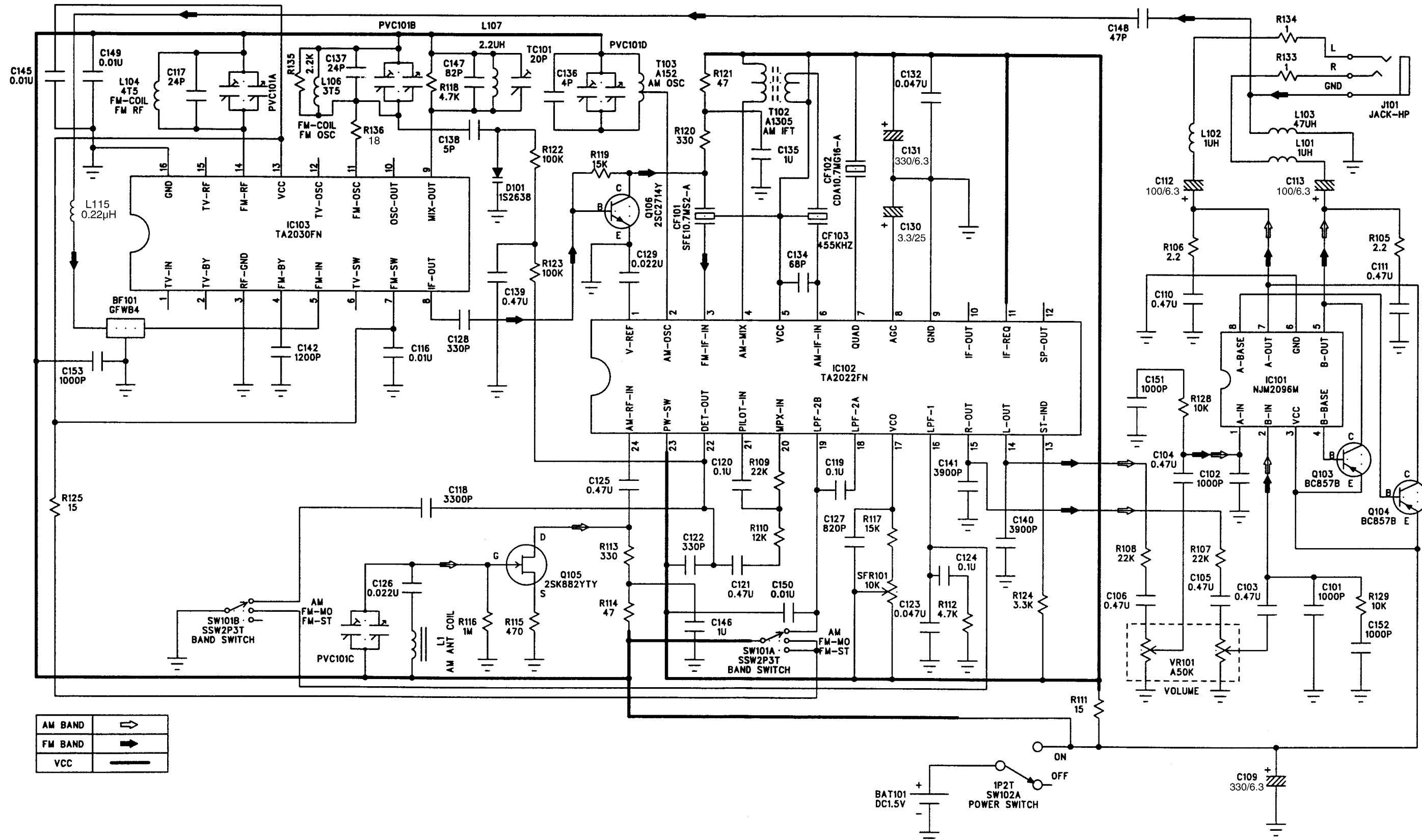
チップ抵抗
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm)			抵抗コード : A Resistor Code : A	
				外形／Form	L	W		
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

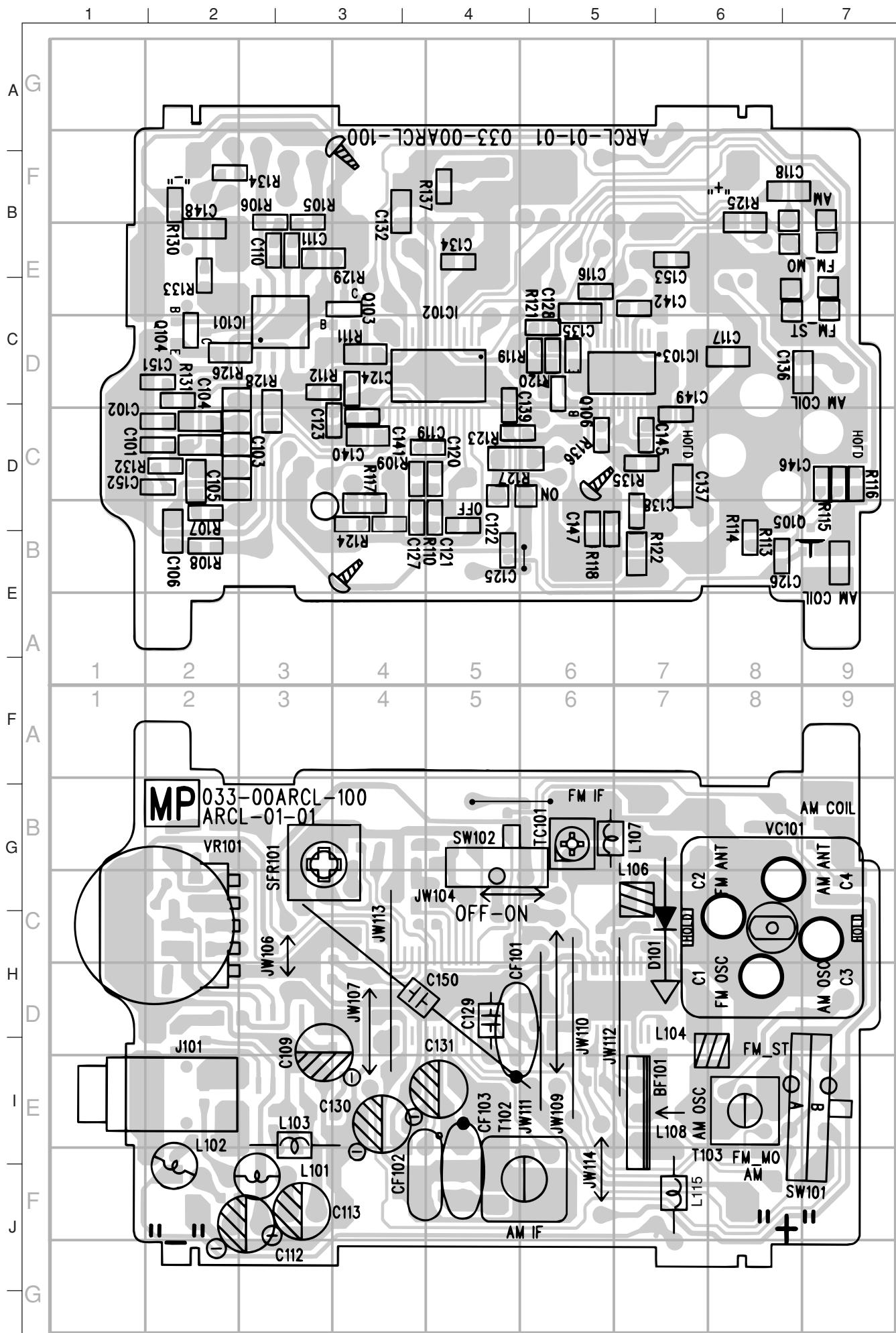
TRANSISTOR ILLUSTRATION



SCHEMATIC DIAGRAM



WIRING



VOLTAGE CHART

IC103 (TA2030)

PIN'S NUMBER	1	2	3	4	5	6	7	8
FM	0	0.09	0	0.82	0.07	0.33	1.53	1.51
PIN'S NUMBER	9	10	11	12	13	14	15	16
FM	1.59	1.46	1.58	0.94	1.53	1.58	0.93	0

IC102 (TA2022FN)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10	11	12
FM	0.88	1.58	0.88	1.44	1.43	1.44	1.42	0.79	0	1.44	1.42	0
AM	0.86	1.54	0.86	1.46	1.46	1.46	1.46	0.58	0	1.46	1.46	2.52
PIN'S NUMBER	13	14	15	16	17	18	19	20	21	22	23	24
FM	0.79	0.45	0.44	0.66	1.33	0	0	0.09	0	0.77	1.42	0.01
AM	1.37	0.45	0.45	0.05	0.80	0	1.54	0	0.03	0.74	1.46	0.87

IC101 (NJM2096M)

PIN'S NUMBER	1	2	3	4	5	6	7	8
FM	0	0	1.57	0.89	0.70	0	0.70	0.89

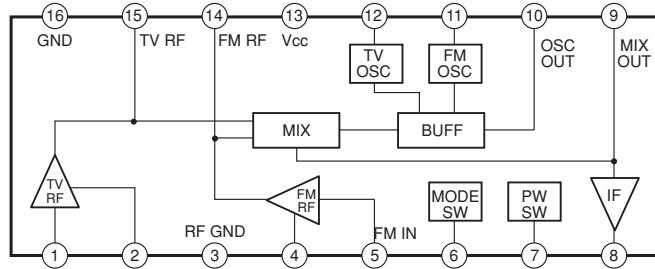
TRANSISTOR	Q105 (2SK882YTY)		
	S	D	G
AM	0.42	1.21	0
FM	0.42	1.22	0

TRANSISTOR	Q106(2SC2714)		
	E	C	B
FM	0	0.89	0.72

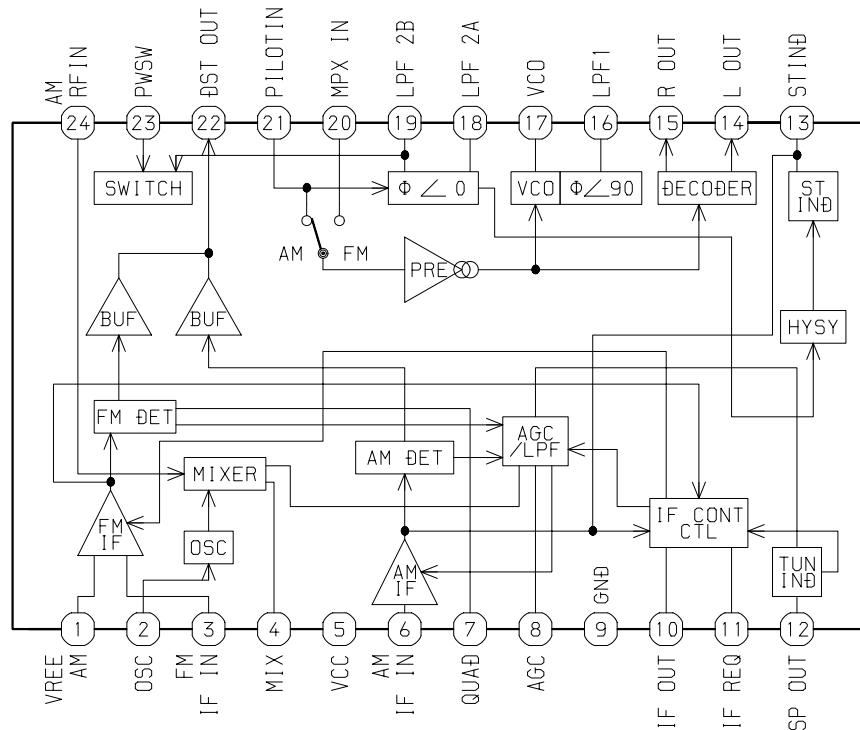
TRANSISTOR	Q103(BC857B)			Q104(BC857B)		
	E	C	B	E	C	B
FM	1.55	0.70	0.88	1.55	0.70	0.88

IC BLOCK DIAGRAM

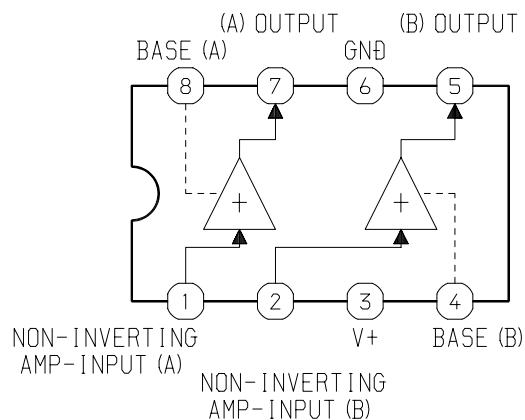
IC, TA2030FN



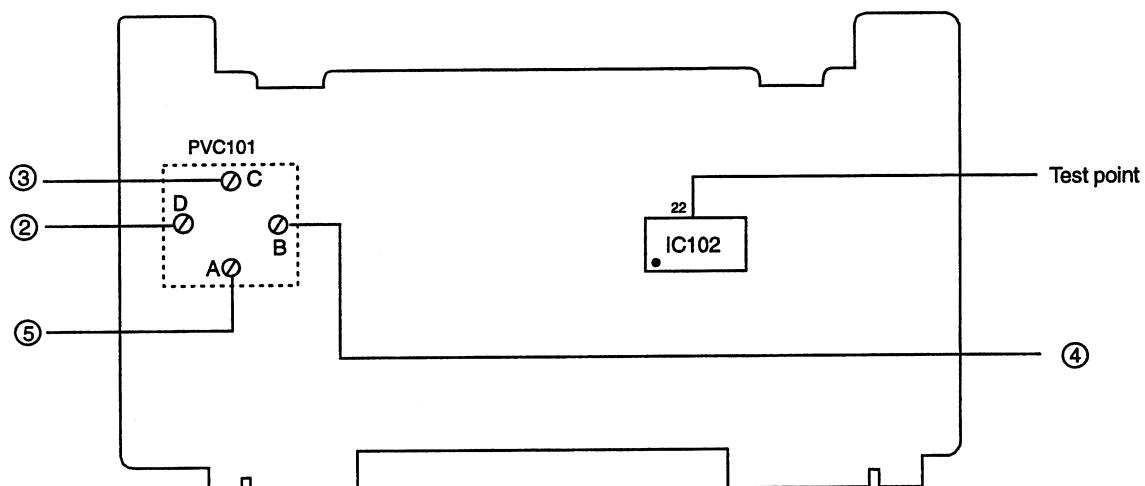
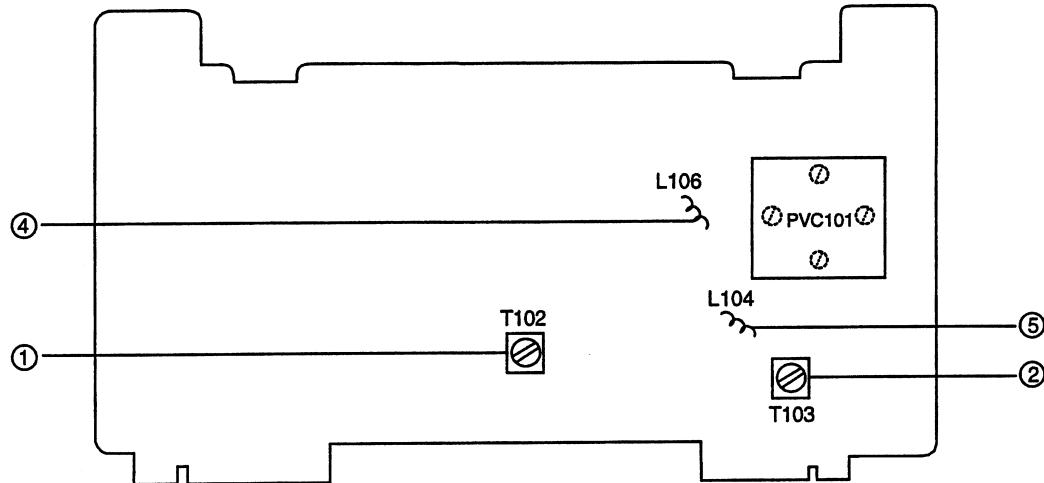
IC, TA2022FN



IC, NJM2096M



ELECTRICAL ADJUSTMENT



1. AM IF Adjustment

Test point: IC102(TA2022FN) 22 PIN

Adjustment location: T102

T102 ----- 455 kHz

2. AM Frequency Range Adjustment

Test point: IC102(TA2022FN) 22 PIN

Adjustment location: T103, PVC101D

T103----- 517 KHz

PVC101D----- 1750 KHz

3. AM Tracking Adjustment

Test point: IC102(TA2022FN) 22 PIN

Adjustment location: AM ANT(L1) PVC101C

AM ANT----- 600 KHz waveform max.

PVC101C----- 1400 KHz waveform max.

4. FM Frequency Range Adjustment

Test point: IC102(TA2022FN) 22 PIN

Adjustment location: L106, PVC101B

L106 ----- 87 MHz

PVC101B----- 109 MHz

5. FM Tracking Adjustment

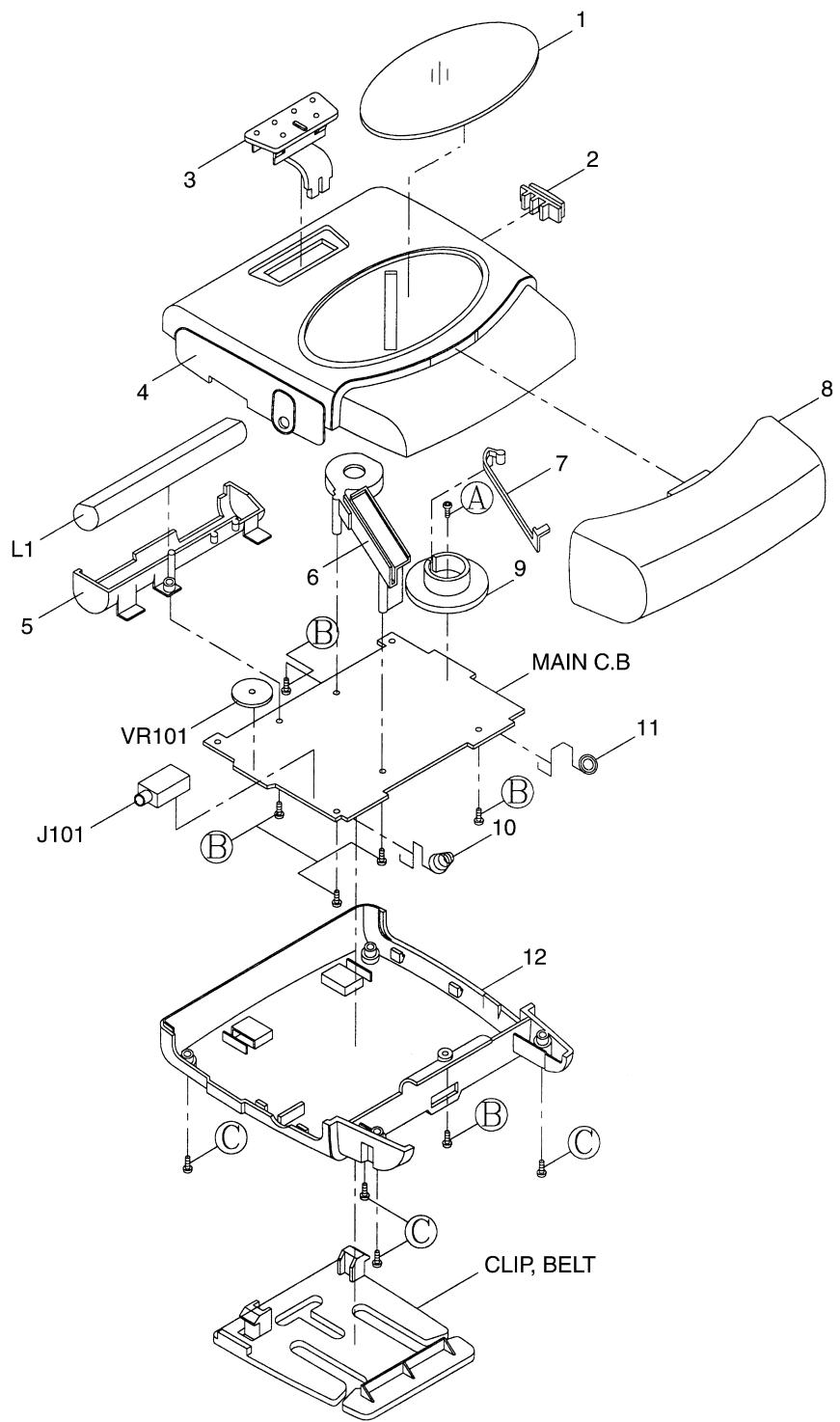
Test point: IC102(TA2022FN) 22 PIN

Adjustment Location: L104, PVC101A

L104----- 88 MHz waveform max.

PVC101A----- 108 MHz waveform max.

MECHANICAL EXPLODED VIEW 1/1



MECHANICAL MAIN PARTS LIST 1/1

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REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-RCL-003-010		WINDOW, TUNE YU	12	8A-RCL-002-010		CABI, REAR YU
2	8A-RCL-013-010		KNOB, SL BAND YZ	A	87-266-525-310		SCREW V+2-3
3	8A-RCL-014-010		KNOB, SL POW YZ	B	87-354-529-310		VT2+1.7-4
4	8A-RCL-001-010		CABI, FRONT YU	C	87-B10-026-010		VT2+1.7-8 CR HL
5	8A-RC7-201-010		HLDR, ANT				
7	8A-RCL-008-010		POINTER,				
8	8A-RCL-009-010		LID, BATT				
9	8A-RCL-007-010		KNOB, RTRY TUNE				
10	8A-RCL-203-010		BAT-CONTACT, (-)				
11	8A-RCL-202-010		BAT-CONTACT, (+)				



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